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ABSTRACT

An extensive literature exists on what makes good teachers, focusing on their characteristics, their behaviors in the classroom, and the effects they have on their students. This literature points to three groups as being currently involved in defining good teachers: students, who, as research demonstrates, are reliable observers, fair and unbiased raters, and capable of describing the characteristics and behaviors of good teachers; external judges assessing student outcomes as the measure of educational effectiveness; and educational researchers, who through their counting, observing, experimenting, and surveying, attempt to provide generalizable definitions and criteria for teaching effectiveness. The literature on criteria for evaluating the quality of instruction is deficient in several areas, lacking good discussion of what teachers are trying to accomplish, a constructive approach to applying research to the improvement of practice, and a body of information on how to conduct research in the classroom. The most useful approach to filling these gaps in the literature, while at the same time improving undergraduate instruction, involves teachers doing research in their own classrooms and learning laboratories as a means of evaluating their effectiveness as teachers while fostering intellectual stimulation and professional renewal. Examples of the kinds of classroom research projects that might be undertaken include an investigation of the dropout problem, whether review sessions before exams promote long-term retention, or whether particular teaching methods are effective. While these kinds of projects do not generally call for complicated research methodologies, they should use acceptable standards of research practice if they are to have value in improving classroom teaching. (LAL)

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IMPROVING LEARNING IN COMMUNITY COLLEGES

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of the League for Innovation in the Community College

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IMPROVING LEARNING IN COMMUNITY COLLEGES

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It always gives me a boost to meet with representatives of League colleges because I feel that I am on the cutting edge of change in higher education when I meet with you. There is an excitement about the educational challenges that become your daily fare. This conference with computers as the theme, is one more example of your desire to operate on the cutting edge in education.

Since about the 1960s, most of the major trends in higher education have started in community colleges and then moved to the rest of higher education. The examples are easy to cite. Community colleges were the first to deal effectively with the influx of underprepared students to higher education. Adult, part-time students constituted another wave of new students to higher education, and community colleges responded with new programs and new flexibilities regarding the time and place of education. America's new and old immigrants make their way into American society largely through community colleges.

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Presented at the League for Innovation Conference, Miami, Florida, October 8, 1986. Appreciation is expressed to Harvard University and to NCRIPTAL, University of Michigan, for funds to support work on classroom research.

Since community colleges were established to reach out to new populations of college students, it isn't especially surprising that students and their needs have dictated concerns and shaped educational policy in community colleges. Perhaps because of this orientation to the external environment, however, community colleges have also been quicker to respond to other changes in the environment--the arrival of the learning society with its need for establishing close working relationships between colleges and other educational providers in the community, the age of technology and the potential of computers to improve educational management and instruction.

These trends that we now recognize as affecting education at every level make an early appearance in community colleges and then spread to other segments of higher education, but not before League colleges have recognized the problem or opportunity and grappled with the implications for education.

I salute you and hope that as your colleges continue their inevitable route toward middle-age, you will not lose your pioneering spirit, youthful energy, and sense of adventure and optimism.

The cutting edge of change keeps moving, of course, and with it your agenda and attention. The challenge now is to improve the quality of education for everyone--traditional as well as non-traditional students. We have heard a lot about the quality issue in the past five years. The reports that constitute the educational reform movement of the 1980s have taken as their major mission the improvement of undergraduate education.

Most of the recommendations have to do with what is taught, i.e. the curriculum. Some seem to think that is where the problem lies--that students don't learn what they should learn in college. I am inclined to think, however, that how students are taught is even more critical. What is taught is important, but how it is taught makes the difference between a lifelong learner and a grade grubber, between enthusiasm for learning and indifference to it, between an educated society and a credentialed one.

Our educational system is based on the belief that something important happens when teachers meet students in the classroom, machine shop, or learning lab. Most of any institution's budget is allocated to costs of instruction, and yet instruction receives very little attention from college administrators--not because we don't think it is important, but because we don't quite know what to do about a number of things. College teachers, for instance, are authorities in their specialties. No one else at the institution knows quite as much about their particular specialties as they do, so there is an understandable reluctance to tell faculty what or how to teach. Moreover, we in higher education equate academic freedom with the sanctity of the classroom, and there is a tradition of restraint in probing too deeply what goes on there. And finally, there are a set of age-old questions that have not been answered to the satisfaction of many--What constitutes effective teaching? Who should evaluate college teachers and how? Can the multiple forms of good teaching be recognized and appropriately rewarded?

Those are good questions, and they are questions that

are especially important to so-called teaching institutions. I think all colleges and universities are, or should be, teaching institutions, but my concern today is with those institutions where the job definition is unambiguous for faculty members. They are teachers first, and if they don't do that well, there is no place else to hide.

Most of us believe that the quality of student learning depends in large measure on the quality of instruction. And most people--at least those who write reports and make state policy--believe that if the rewards for good teaching were greater the teaching would be better. Without denying that greater rewards, more attention, and more value placed on teaching would undoubtedly help, it is by no means certain that we really know what to do to improve teaching. The notion that greater rewards will improve teaching assumes that faculty know how to teach well, but are not doing so because there are other things more rewarding.

I am going to assume, for the purposes of getting this discussion off the ground this morning, that this is an ideal world, and that good teaching will be appropriately rewarded. Now what?

First we have to decide what good teaching is. We are not exactly novices in discussing and researching that question. There is an extensive literature on research and various people's notions about what makes a good teacher. Basically, there are three ways to describe effective teachers: 1) We can describe their characteristics--training, experience, and knowledge of subject matter, 2) We can describe their behaviors in the class-

room--whether they ask provocative questions, call students by name, and encourage discussion, and 3) We can describe what students are able to do as a result of the teacher's efforts--how much they know, how well they think, their attitudes toward learning, etc. In short, the literature consists of descriptions of input, process, and output variables. The criterion problem is present, of course, in all of these approaches. In order to describe what a good teacher is, or does, or accomplishes, we need to know how we are defining a "good" teacher. A little reading of the literature on this issue quickly drives one to paraphrase the Supreme Court justice commenting on pornography, "I can't define good teaching, but I know it when I see it."

Well, maybe that is not such a bad position to take. All of us can identify good and poor teachers on our own campuses, and when researchers go onto a campus and start asking students, faculty, and administrators to identify the best teachers on campus, it doesn't take long to come up with a list that shows rather high agreement.

Much of the agreement, of course, comes from the heresay of student comments on teachers and courses. In recent years, the "heresay" has been formalized into systematic student ratings, and student evaluations of teaching have been widely adopted nationwide. To the credit of higher education, the use of student ratings increased in proportion to the positive findings from research on the reliability and validity of student evaluations. Although researchers can still manage to raise new questions and reservations, I think the judgment is fairly well in by now. Students are reliable observers; they have ample

opportunity to see teachers in action on good days and bad, and they are in a good position to evaluate the impact of the teaching on themselves as learners.

Moreover, the evidence suggests that student ratings have good validity, i.e. that students tend to rate most highly those courses in which they learn the most. Centra (1977) found correlations in the .60s and .70s between scores on final exams and student ratings of "overall teaching effectiveness" and "value of the course." While one can still find reported correlations ranging from negative to high positive, the tilt of comprehensive, well-designed studies--and the more recent meta-analyses (Cohen, 1982)--is clearly toward significant positive correlations between student achievement and positive course ratings.

Another test of the validity of student ratings is to relate student ratings to teacher behaviors in the classroom. Murray (1985) found that teachers who received high student ratings did, according to neutral classroom observers, teach differently from teachers receiving low ratings. Highly rated teachers were well-organized, expressive, lucid, interacted more with students, related subject matter to student interests and in general demonstrated the same classroom behaviors that students report for good teachers (Erdle and Murray, 1986).

Students also tend to be reliable and relatively unbiased raters. There is no evidence to support the myths that popular teachers are mere showmen, that the mature perspective of alumni will find virtues in the professors that were not respected ten years earlier, that teachers who are tough graders

will receive low ratings, or that agreement on the identity of good teachers is difficult to achieve (Gaff and Wilson, 1971).

One answer to those who are ready to reward good teaching if it can be identified is that students know good teaching when they see it. But students can go further; they can describe the characteristics and behaviors of good teachers. The research, by this time, is fairly consistent on what students consider important factors in effective teaching. Feldman (1976) reviewed a group of studies in which students were asked to describe "good" or "ideal" or "best" teachers. He found eight characteristics that were usually ranked high in all studies: concern for students, knowledge of subject matter, stimulation of interest, availability, encouragement of discussion, ability to explain clearly, enthusiasm, and preparation. There is nothing at all surprising about his findings. These characteristics turn up over and over again in one form or another when students are asked to describe good teachers.

Factor analytic studies of student rating forms show rather similar clusters of characteristics. Feldman (1976) reviewed nearly 60 factor analytic studies and concluded that there were three major clusters in effective teaching--the instructor's ability to present the material, to encourage students to learn, and to regulate and deal fairly with students. Kulik and McKeachie (1975) reviewed eleven factor analytic studies of teacher rating scales and found similar factors which they labeled as follows: "Skill," which represents the ability to communicate in an interesting way, to stimulate intellectual curiosity, and to explain clearly, "Rapport" which involves

empathy, interaction with and concern for students, "Structure" which concerns organization and presentation of course material, and "Overload" which refers to the workload and instructor demands (Abrami, 1985).

I find all of this quite credible, and I have no difficulty believing that teachers who have these characteristics, not only rate high with students, but probably are good teachers. Since student evaluations are far and away the most common form of teacher evaluation at the college level, teacher effectiveness is currently being defined and determined by a combination of researchers, who decide which items should go into the rating scales, and by students who decide which items will be important.

The next five years will probably see the rapid growth of another set of judges and definers of good teaching. The assessment of student learning movement--for surely it can be called "a movement" now--purports to use student outcomes as the measure of educational effectiveness. At worst, this will put the definition and reward of good teaching in the hands of external agencies who will decide what students should know and how it is to be measured. At best, it will call attention to the goals of instruction and how well they are being accomplished. Statewide testing of student achievement is certainly on the increase, and while it is quite unlikely to determine an individual teacher's future, it is possible that teachers will be encouraged to "teach to the test." If the test really measures what students should learn in college, that may not be all bad, but few have that much confidence in our current measures of learning.

The assessment movement underway now has ambitious goals

but quite modest accomplishments. Almost everyone would like to measure a wide range of student outcomes, affective as well as cognitive, to develop in teachers the insight and motivation for instructional self-improvement, and to integrate assessment into the instructional process. However, what we have to date in most places is the measurement of a narrow band of fairly low-level cognitive skills. While the current practices seem a long way from the ideal, the search for better measures must be undertaken. Assessment is the first step to improvement.

Yet a third set of judges of the criteria for teaching effectiveness are educational researchers. Educational researchers go about determining teacher effectiveness in a variety of ways. They count; they observe; they conduct experiments; they write ethnographic or naturalistic descriptions; they survey other people. While some would claim that researchers don't determine the criteria for teaching effectiveness and that their task is to describe what exists without imposing their own values on the data, that is not what really happens.

The major value that researchers impose on the search for criteria of teaching effectiveness is that the findings must be generalizable, that is to say, not specific to any particular classroom. The methods of traditional social science research--sampling, tests for significance, control of variables, and the like--are devised largely to prune out situation-specific influences, leaving those characteristics common to all or most effective teachers. Yet, some of the most effective teachers any of us can remember were effective because their unique characteristics worked in very specific situations. The search for criteria

for teaching effectiveness that has been conducted with considerable energy and earnestness by researchers over the past decade is helpful in showing us what effective teachers have in common, but it masks some of the most useful information, specifically any insight into how individuals with their infinite variety and unique values and interests develop into effective teachers in a situation-specific classroom.

I have taken some time to review the current status of research on the criteria for evaluating the quality of instruction because I want now to talk about what's missing and how we can find it and apply it to the improvement of undergraduate instruction.

The first thing that is missing from the literature is some good discussion of what teachers are trying to accomplish. Students, legislators, and researchers all have entrees to defining the criteria for good teaching. But, in my survey of some 200 articles and books on college teaching, I came across only two studies that asked teachers what they wanted students to learn from them. True, teachers serve on committees to develop achievement tests; they serve on curriculum committees; they are frequently polled regarding hours spent in class preparation, perceived rewards for teaching, and attitudes about the policies of their institutions. But they are rarely asked what they are trying to do in their own classrooms.

A classic study by Axelrod (1976) found that even among the relatively homogeneous population of humanities teachers in 4-year colleges, teachers were aiming for vastly different outcomes. Some taught to the goal of mastery of subject matter.

Some worked to help students develop higher level cognitive skills such as synthesis, analysis, and evaluation. Some were more interested in the personal development of their students, while others tried to model for their students the well-educated mind at work.

Studies of teaching goals in community colleges would probably reveal additional goals. Some teachers are trying to teach job-entry skills, some have the building of self-confidence and self-respect as their first priority. Some feel strongly that the greatest service they can render is to see that students learn the basic skills of communication.

The first step then, I should think, in improving undergraduate instruction is to find out what teachers are trying to do. If that is not what they should be doing or if their aspirations are not high enough, that's one thing. But if they do not or cannot accomplish the goals they set for themselves, then that is a different problem.

The second element that is missing from the literature on effective teaching is a constructive approach to applying research to improve practice. I specify "constructive approach" because, over the years, there has been criticism of practitioners for their failure to use research, on the one hand, and criticism of researchers to work on useful questions, on the other. But I think the gap between research and practice is the fault of neither.

Social science research, with its search for general truths that hold across all classrooms, is not designed to address the situation-specific questions that teachers have.

What a teacher needs to know is how his or her behavior affects the learning of a known group of students, studying a specific learning topic, under known conditions. Few researchers can afford to produce such custom-designed research. By and large, the purpose of educational research is to push back the frontiers of knowledge and to build the foundations for understanding. It is to improve the practice of education writ large, but so far it has done little to improve classroom teaching. John Dewey (1929, p.19) wrote almost sixty years ago that, "no conclusion of scientific research can be converted into an immediate rule of educational art." That wisdom still holds true today (Fenstermacher, 1982).

Donald Schön (1983) contends in his new and provocative little book entitled The Reflective Practitioner that research has done little to improve practice in any of the professions. In fact, he says, universities pursue "a view of knowledge that fosters selective inattention to practical competence and professional artistry" (p. vii). He calls for us to put aside the notion that "intelligent practice is an application of knowledge to instrumental decisions" (p.50) and instead to help professionals gain insight into their practice through an ongoing process of reflecting on what they know and articulating their intuitive thinking.

While it seems to me that Schön's reflection-in-action offers helpful new perspectives on the use of knowledge to improve practice, I continue to think it is both possible and desirable for teachers to collect and use both "hard" and "soft" data on what students are learning in their classrooms. I call

this classroom research. Research designed for the improvement of teaching should be conducted in real classrooms or learning laboratories, and it should provide immediate and useful feedback on what students are learning. Computers are proving of enormous value in providing data on student learning, not only in large-scale assessment projects, but most importantly while learning is in process with students at the keyboard.

Classroom research may, at first blush, appear to result in knowledge with extremely limited usefulness to the profession of teaching, but my guess is that the exchange of knowledge from many specific classrooms will give teachers more useful insight into the teaching/learning process than the search for generalizations across a "representative sample" of students, teachers, and subject matters. In any event, I think it highly likely that the knowledge gained from doing research is more likely to be used than that gained from reading about research.

The third thing that is missing is a literature on how to conduct research in and on the classroom, with its inevitable variations in teachers, students, and subject matter. An articulate group of critics of traditional educational research is beginning to be heard promoting various alternatives, such as ethnographic research, naturalistic inquiry, action research, qualitative methods, and reflective practice (See, for examples, Guba, 1979; Guba and Lincoln, 1981; Eisner, 1980, 1984; Argyris, et al. 1985; Schön, 1983; Stiggins, 1985). This is a scattered but promising development, one that should add valuable perspectives to the search for knowledge about teaching and learning.

But naturalistic inquiry, ethnographic research, and the

other new alternatives to quantitative, experimental research, for all their value--and it is considerable--are not the answer to a research approach to the improvement of teaching either. Many of their rules and conventions are no more applicable to the improvement of classroom practices than those of quantitative and experimental research. Naturalistic evaluation, for example, requires "lengthy and prolonged" engagement by a highly trained researcher (Williams, 1986), and part of the value of ethnography comes from the notion that findings should "evolve" from the study rather than be interpreted as "answers" to questions formulated by researchers (Smith, 1982).

Perhaps we could simply work harder and write more (perish the thought) to fill in the missing pieces that I have identified from my review of the literature on effective teaching, but I suggest that it is time to develop a different approach, specifically designed for what we want to accomplish, namely, the improvement of instruction. I am convinced that the most useful research will be done by teachers themselves in their own classrooms and learning laboratories. The purpose of classroom research is to help the teacher evaluate his or her effectiveness as a teacher and to foster intellectual stimulation and professional renewal for college teachers. The concept of classroom research springs from six basic assumptions:

1) That the quality of student learning is directly related to the quality of instruction.

2) That teachers need to know what their students are learning in their classrooms.

3) That inquiry and intellectual challenge are sources of professional renewal for teachers.

4) That the research most likely to improve instruction is that conducted by classroom teachers formulating and investigating questions that they want answered.

5) That self-improvement is most likely to result from specific feedback relevant to one's own goals and behaviors.

6) That there is nothing so mysterious or esoteric about research on college teaching that it cannot be done by anyone capable of teaching at the college level.

I suggest that the implementation of classroom research should begin with experienced teachers in the field, but I also think that every graduate student planning to teach any subject in any college should demonstrate competency in conducting investigations into the effectiveness of his or her own teaching. New graduate courses need to be designed, new methods devised, new perspectives developed. Let me give some concrete examples of what some possible classroom research projects might look like.

First, I would like to give an example of the contrast between how a classroom researcher and a traditionally trained researcher might approach a similar problem. Let us assume that the problem is the familiar one of dropouts. In the traditional studies of dropouts that we all know so well, the researcher selects representative samples of dropouts and persisters, and after collecting data from student records, determines the differences between persisters and dropouts, inevitably concluding that dropouts come from lower socioeconomic backgrounds, made lower grades in high school, work more hours off campus, are commuters, and have lower educational expectations.

While these findings are verified so frequently by researchers that we have to conclude that they are indeed factors in dropping out of college, all of the factors identified are what Ben Bloom (1980) would call "unalterable variables." There is nothing that educators can do to change them.

Now let us see how a classroom researcher might study this problem. Let us assume that our classroom researcher is curious about the dropout problem, decides to interview some students who stopped coming to class, and finds out that a certain amount of discouragement sets in as the semester's work begins to build. As she reflects on this observation, it occurs to her that she usually hits her stride as a teacher about the fifth week of the semester and feels ready to tackle some of the more difficult units about that time. She notes that the high dropout in her own classes occurs about five weeks into the school year, and she concludes that she might try a number of things in her own classroom to reduce needless dropouts--perhaps give an especially satisfying assignment, maybe rework or reschedule the difficult unit, maybe call in a few students and talk with them about the unit or about the class, perhaps offer special encouragement, make a referral, drop a note, make a call.

The procedure of the classroom researcher is to formulate the question, collect data, reflect on classroom practices, try a solution, and evaluate the results. A graduate level course in classroom research might consist of some work on how to get the most information from classroom tests, how to design course evaluations, how to create and use quick feedback devices for determining the effect of various teaching approaches, how to

use panels of students to understand class reactions, how to interview, how to use holistic analyses for written work and other research techniques designed to provide feedback to teachers on what students are learning. Computers used in the instructional process are goldmines of information about student learning processes. But teachers must learn to use this information to shape instruction.

Faculty meetings might consist of groups of classroom researchers and might well be planned around classroom research projects to share data, perceptions, and possible solutions. The emphasis in faculty meetings should be on the use of data and systematic observation; discussion might appropriately range from sharing useful and creative approaches to gathering data, to data analysis, to recommendations for possible changes in policies and practices within the department. One of the important side effects of classroom research is that it has the potential for adding professional stimulation to faculty meetings.

I cite this example of a department-wide project to show that classroom research need not be a solitary activity. The questions raised in classroom research may be shared with a variety of others--departmental colleagues, the faculty of a college, disciplinary peers nationwide, or any other group of educators with a common question.

At the same time, classroom research is appropriate to the study of a unique problem occurring in an individual classroom--or perhaps it is not a "problem" at all, but rather a matter of curiosity to the teacher. Examples of this sort of project are numerous. Perhaps the teacher wants to know whether

a "review session" prior to the mid-term helps in long-term retention or is only useful for immediate test score gains. Or perhaps the teacher is interested in knowing whether a field trip is worth the effort in changing attitudes about a particular social problem--or would reading about it or discussing it or seeing a dramatization on videotape do as well or better? Maybe a math teacher, interested in teaching a particular math concept, reads about another teacher's method and decides to test it in his own classroom.

The projects for classroom research are limited only by teachers' imaginations. While the examples I have presented do not generally call for complicated methodologies or analyses, there is nothing to prevent interested teachers from studying very complex learning problems. Mina Shaughnessy's (1977) contribution to the improvement of student writing was arrived at through sitting down with hundreds of beginning writers and sensitively observing individual struggles with the writing process.

In conclusion, I think it is time to get classroom teachers directly involved in the study of teaching and learning. They should be intellectually curious about it as well as professionally involved in the improvement of their own teaching practices. While classroom research can be done now by any teacher with the appropriate curiosity and motivation, I believe that if classroom research is to help all of us, there should be standards for the quality of the research. We have come a long way over the past fifty years, and there is much that we have learned about the study of human behavior. My plea is not to ignore university-based research on teaching and learning, but to build a

new science of classroom research on the foundation of what we now know about research methods and application--with the important caution that we keep classroom research true to its own purposes, namely improving the practice of classroom teaching. It should be done by teachers in teaching institutions.

It seems to me that the mission and reputation of League colleges puts you in an ideal position to take the leadership in training your teaching faculty to do classroom research. I hope you will.

10/6/86

REFERENCES

Abrami, Philip C. "Dimensions of Effective College Instruction." Review of Higher Education, Spring 1985, 8 (3), 211-228.

Argyris, Chris, Putnam, Robert and Smith, Diana M. Action Science. San Francisco: Jossey-Bass, 1985.

Axelrod, Joseph. The University Teacher as Artist. San Francisco: Jossey-Bass, 1976.

Bloom, Benjamin S. "The New Direction in Educational Research: Alterable Variables." Phi Delta Kappan, February 1980, pp. 382-385.

Centra, John A. "The How and Why of Evaluating Teaching." New Directions for Higher Education, Spring 1977, 17, 93-107.

Cohen, Peter. "Validity of Student Ratings in Psychology Courses: A Research Synthesis." Teaching of Psychology, 1982, 9 (2).

Dewey, John. The Sources of a Science of Education. New York: Liveright, 1929.

Eisner, Elliott. "Toward a Conceptual Revolution in Evaluation." Educational Forum, March 1980, XLIV (3), 373-374.

_____. The Art of Educational Evaluation: A Personal View. London and Philadelphia: The Falmer Press, 1984.

Erdle, S. and Murray, H.G. "Interfaculty Differences in Classroom Teaching Behaviors and Their Relationship to Student Instructional Ratings." Research in Higher Education, Vol. 24, No. 2, 1986, 115-127.

Feldman, Kenneth A. "Grades and College Students' Evaluations of Their Courses and Teachers." Research in Higher Education, 1976, 4, 69-11.

Fenstermacher, Gary D. "On Learning to Teach Effectively from Research on Teaching Effectiveness." Journal of Classroom Interaction, Vol. 17, No. 2 (1982)7-12.

Gaff, J.G. and Wilson, R.C. "The Teaching Environment." AAUP Bulletin, December 1971, pp. 475-493.

Guba, Egon G. "Naturalistic Inquiry." Improving Human Performance Quarterly, 1979, 8(4), 268-276.

Guba, E.G. and Lincoln, Y.S. Effective Evaluation: Improving The Usefulness of Evaluation Results Through Responsive and Naturalistic Approaches. San Francisco: Jossey-Bass, 1981.

Kulik, J. A. and McKeachie, W.J. "The Evaluation of Teachers in Higher Education." In F. N. Kerlinger (Ed.), Review of Research in Education, Vol. 3. Itasca, Ill: F. E. Peacock, 1975.

Murray, Harry G. "Classroom Teaching Behaviors Related to College Teaching Effectiveness." J. G. Donald, A. M. Sullivan (Eds.), Using Research to Improve Teaching. New Directions for Teaching and Learning, No. 23. San Francisco: Jossey-Bass, September 1985, 21-34.

Shaughnessy, Mina. Errors and Expectations. New York: Oxford Press, 1977.

Schön, Donald A. The Reflective Practitioner. New York: Basic Books, 1983.

Smith, Louis M. "Ethnography." Encyclopedia of Educational Research, 5th ed., Vol. 2. New York: The Free Press, 1982, 587-592.

Stiggins, Richard J. "Improving Assessment Where It Means the Most." Educational Leadership, October 1985, 43 (2), 69-74.

Williams, David D. "Naturalistic Evaluation: Potential Conflicts Between Evaluation Standards and Criteria for Conducting Naturalistic Inquiry." Educational Evaluation and Policy Analysis, Spring 1986, 8 (1), 87-99.

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